

AATOM™ 700 acid

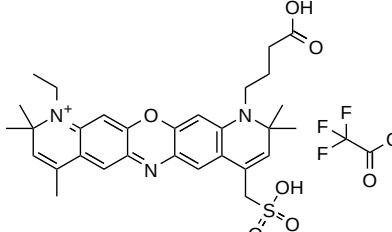
Catalog Number: 70300

Unit Size: 5 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	679.71
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	699 nm
Emission Wavelength	715 nm

Applications

AATOM™ 700 is a near-infrared fluorescent dye characterized by its strong absorption, high photo and thermal stability, and good aqueous solubility. It is optimally excited within the 670-715 nm wavelength range. As a zwitterionic compound, AATOM™ 700 remains electrically neutral when conjugated to biomolecules or other substrates. Its strong electron-accepting properties result in efficient fluorescence quenching by electron donors such as guanine and tryptophan. These properties make AATOM™ 700 ideal for precise applications including single-molecule detection and super-resolution microscopy techniques like PALM, dSTORM, and STED. Furthermore, AATOM™ 700 is compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), and a variety of other biological assays, making it a versatile tool in advanced fluorescence-based research.

AATOM™ 700 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing AATOM™ 700 conjugates. It is also suitable for use as a control in confocal microscopy, immunocytochemistry (ICC), high-content screening (HCS), flow cytometry, and live cell imaging applications. Furthermore, it can be utilized in the synthesis of activated esters and STP and can be coupled to hydrazines, hydroxylamines, or amines in aqueous solutions using water-soluble carbodiimides (e.g., EDAC). This allows for the conjugation of the dye to amino-containing molecules, such as proteins, antibodies, amine-modified oligonucleotides, and peptides. This product is manufactured by AAT Bioquest and is not affiliated with ATTO-TEC GmbH.